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ABSTRACT OF THE DISCLOSURE

For humidifying a work space in a gas-fed incubator, water in a heatable pan in the floor area of an inner container surrounding the work space is evaporated with temperature-controlled heating of the interior until a predetermined temperature is reached, whereby a dynamic equilibrium state between condensation and evaporation in the inner container is achieved as long as there are no disturbances. If a door for access to the inner container is opened, the open time until it is closed is detected and a period, during which the pan containing water is heated, is determined depending on the open time of the inner container. Here, the period features only a heating phase with a running time if the open time is within a predetermined time interval. The period further includes a secondary heating phase with a second running time if the open time exceeds the time interval. A gas-fed incubator operating according to the method has a work space in the inner container that can be closed by means of a door with temperature control of the interior, wherein in a floor area of the inner container there is a humidifier with at least one controllable heating element for an atmosphere of the inner container in the form of a pan holding a water bath. The door for closing the inner container has a door switch that is electrically connected to an input of a control unit for operation of the humidifier.